

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A palpation device comprising:  
a first palpation assembly including a first palpation member and a light source; and  
a second palpation assembly including a second palpation member and a light detecting means for detecting light emitted by the light source and generating an image of a body part disposed between the first and second palpation members;  
wherein at least one of the first and second palpation members is movable with respect to the other member, to palpate a body part disposed therebetween.
2. (Currently Amended) A palpation device as claimed in claim 1, further comprising means for measuring at least one physical parameter of the body part.
3. (Original) A palpation device as claimed in claim 2, wherein the physical parameter of the body part is the resistance to deformation in response to an applied force.
4. (Currently Amended) A palpation device as claimed in ~~either of claims 2 or 3~~ claim 2, wherein the measuring means comprises force measuring sensors for measuring ~~the~~ a force applied to the body part to produce a deformation.
5. (Currently Amended) A palpation device as claimed in ~~any one of claims 2 to 4~~ claim 2, wherein the measuring means comprises software for performing feature recognition and classification.

6. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the first and second palpation members are independently moveable.

7. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein at least one of the first and second palpation members is moveable in at least two mutually perpendicular planes of motion, with respect to the body part.

8. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein both palpation members are movable in three mutually perpendicular planes of motion, with respect to the body part.

9. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein at least one of the first and second palpation members is generally planar.

10. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the palpation device is for use in minimal access surgery (MAS).

11. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the first palpation member further comprises a light transmitting member.

12. (Currently Amended) A palpation device as claimed in claim 11, wherein the ~~first palpation~~ light transmitting member is transparent.

13. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the light source is embedded in the first palpation member.

14. (Currently Amended) A palpation device as claimed in ~~any one of claims 1 to 12~~ claim 1, wherein the light source is optically coupled to the first palpation member.

15. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the first palpation member is optically shaped to transmit a substantial part of the light emitted by the light source through a surface of said first member, the surface adapted to be located adjacent the body part.

16. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the second palpation member further comprises a light transmitting member.

17. (Original) A palpation device as claimed in claim 16, wherein said light transmitting member is transparent.

18. (Currently Amended) A palpation device as claimed in ~~any one of claims 1 to 15~~ claim 1, wherein the second palpation member further comprises a light sensitive charge coupled device (CCD).

19. (Original) A palpation device as claimed in claim 18, wherein the CCD forms the whole of the second palpation member.

20. (Original) A palpation device as claimed in claim 18, wherein the CCD is embedded in the second palpation member.

21. (Original) A palpation device as claimed in claim 18, wherein the CCD is optically coupled to the second palpation member.

22. (Currently Amended) A palpation device as claimed in ~~any one of claims 20 to 24~~ claim 20, wherein the CCD is adapted to transduce received light into a 2-dimensional ~~(2-D)~~ pixel array for output to a display device to generate the image of the body part.

23. (Currently Amended) A palpation device as claimed in ~~any preceding claim 1~~, wherein the light source comprises a light emitting diode.

24. (Currently Amended) A palpation device as claimed in ~~any one of claims 1 to 22~~ claim 1, wherein the light source comprises optical fibres.

25. (Currently Amended) A palpation device as claimed in ~~any preceding claim 1~~, wherein the light detecting means further comprises a charge coupled device (CCD).

26. (Currently Amended) A palpation device as claimed in ~~any one of claims 1 to 24~~ claim 1, wherein the light detecting means further comprises a camera.

27. (Currently Amended) A palpation device as claimed in ~~any one of claims 1 to 24~~ claim 1, wherein the light detecting means further comprises an endoscope.

28. (Currently Amended) A palpation device as claimed in ~~any preceding claim 1~~, wherein the light detecting means is embedded in the second palpation member.

29. (Currently Amended) A palpation device as claimed in ~~any one of claims 1 to 27~~ claim 1, wherein the light detecting means is optically coupled to the second palpation member.

30. (Currently Amended) A palpation device as claimed in ~~any preceding claim 1~~, wherein the first and second palpation members are moveable between an insertion position and a use position.

31. (Original) A palpation device as claimed in claim 30, wherein, in the insertion position of the first and second palpation members, the palpation device is of reduced dimensions compared to the use position of said palpation members.

32. (Currently Amended) A palpation device as claimed in ~~either of claims 30 or 31~~ claim 30, wherein the first and second palpation members each comprise at least two planar sub-plates, pivotally coupled together for movement between the insertion and use positions.

33. (Original) A palpation device as claimed in claim 32, wherein a number of separate images of the body part are obtained and are adapted to be patched together using suitable software.

34. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the device is adapted to be mounted on a support arm having means for detecting the location and orientation of the palpation device.

35. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the light source is adapted to emit light of a frequency in the visible spectrum.

36. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the light source is ~~adapted~~ operative to emit structured light.

37. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the light source is ~~adapted~~ operative to emit light of a frequency in the infra-red spectrum.

38. (Currently Amended) A palpation device as claimed in ~~any preceding~~ claim 1, wherein the device further comprises detecting means for detecting motion of at least a portion of the body part relative to at least one of the first and second palpation assemblies.

39. (Currently Amended) A palpation device as claimed in claim 38, wherein the detecting means is for detecting motion of said portion of the body part relative to the palpation ~~members~~ member of at least one of the first and second palpation assemblies.

40. (Currently Amended) A palpation device as claimed in ~~either of claims~~ claim 38 ~~or 39~~, wherein the detecting means comprises at least one point of reference.

41. (Currently Amended) A palpation device as claimed in claim 40, wherein the detecting means further comprises a visible grid provided on each palpation member.

42. (Currently Amended) A palpation simulation device comprising:  
a first palpation assembly including a first palpation member and a light source; and  
a second palpation assembly including a second palpation member and a light detecting means for detecting light emitted by the light source and generating an image of a body part disposed between the first and second palpation members;  
wherein at least one of the first and second palpation members is moveable with respect to the other member, to palpate a body part disposed therebetween.

43. (Currently Amended) A method of palpating a body part, the method comprising the steps of:  
providing a first palpation assembly including a first palpation member and a light source;

providing a second palpation assembly including a second palpation member and light detecting means for detecting light emitted by the light source and generating an image of a body part disposed between the first and second palpation members;

locating the first and second palpation assemblies with a body part disposed therebetween;

generating an image of said body part; and

moving at least one of the first and second palpation members relative to said other member, to palpate the body part.

44. (Currently Amended) A method of simulating palpation of a body part, the method comprising the steps of:

providing a first palpation assembly including a first palpation member and a light source;

providing a second palpation assembly including a palpation member and light detecting means for detecting light emitted by the light source and generating an image of a body part disposed between the first and second palpation members;

locating the first and second palpation assemblies with a body part disposed therebetween;

generating an image of said body part; and

moving at least one of the first and second palpation members relative to said other member, to palpate the body part.